

What is claimed is:

1. An image forming apparatus for forming an image on a recording material, the image forming apparatus comprising:

(a) a writing section for writing according to image data;

(b) an oscillator for generating a synchronizing clock signal synchronized with a predetermined frequency;

(c) a spreading clock generator for spreading a band of a reference clock which is synchronized with the predetermined frequency, and generating spreading clock signals;

(d) a plurality of control circuits for controlling the image forming apparatus or each section of the image forming apparatus including a writing control circuit for controlling the writing section,

wherein at least one control circuit of the control circuits other than the writing control circuit is driven by the spreading clock signals, and the writing control circuit is driven by the synchronizing clock signal.

2. An image reading apparatus comprising:

(a) a photoelectric conversion section for receiving light from an original document and for conducting a photoelectric conversion;

(b) a photoelectric conversion control circuit for controlling the photoelectric conversion section;

(c) a reading image processing circuit for processing image data output from the photoelectric conversion section; and

(d) a spreading clock generator for spreading a band of a reference clock which is synchronized with a predetermined frequency, and for generating spreading clock signals,

wherein the photoelectric conversion control circuit and the read image processing circuit are driven by a same spreading clock signal of the spreading clock signals.

3. An image forming apparatus comprising:

(a) a laser light source for emitting light;

(b) a deflector for deflecting the light emitted from the laser light source in a primary scanning direction;

(c) detector for detecting the light deflected by the deflector, and outputting an index signal;

(d) a writing control circuit for controlling a modulation of the light emitted from the laser source according to the index signal output from the detector;

(e) a spreading clock generator for spreading a band of a reference clock which is synchronized with a predetermined frequency, and generating spreading clock signals according to a predetermined modulation profile; and

(f) a resetting section for resetting the spreading clock generator according to the index signal,

wherein the writing control circuit is driven by the spreading clock signals.

4. An image forming apparatus for forming an image on a recording material, comprising:

(a) a first spreading clock generator for spreading a band of a reference clock which is synchronized with a predetermined frequency, and for generating first spreading clock signals;

(b) a second spreading clock generator for spreading a band of a reference clock which is synchronized with the predetermined frequency, and for generating second spreading clock signals;

(c) a first control circuit for controlling the image forming apparatus or each section of the image forming apparatus, the first control circuit being driven by the first spreading clock signals;

(d) a second control circuit for controlling the image forming apparatus or each section of the image forming apparatus, the second control circuit being driven by the second spreading clock signals,

wherein a spreading width of the first spreading clocks is different from that of the second spreading clocks.

5. The image forming apparatus of claim 4,

wherein the first control circuit is an interface control circuit for controlling an interface communicating with an outer equipment, the second control circuit is at least one of a control circuit from among a writing control circuit for controlling a writing section which writes according to image data, a photoelectric conversion control circuit for controlling a photoelectric conversion section which receives light from an original document and converts a photoelectric conversion, a reading image processing circuit for processing image data output from the photoelectric conversion section, an operation control circuit for controlling an operation section, a sequence control circuit for controlling a sequence of an entire image forming apparatus, and an ADF control circuit for controlling an automatic document feeder, and

wherein the spreading width of the first spreading clocks is smaller than that of the second spreading clocks.

6. The image forming apparatus of claim 4,

wherein the first control circuit is a writing control circuit for controlling a writing section which writes according to image data, the second control circuit is at least one of a control circuit from among a photoelectric conversion control circuit for controlling a photoelectric conversion section which receives light from an original document and conducts a photoelectric conversion, a reading image processing circuit for processing image data output from the photoelectric conversion section, an operation control circuit for controlling an operation section, a sequence control circuit for controlling a sequence of an entire image forming apparatus, an ADF control circuit for controlling an automatic document feeder, and an interface control circuit for controlling an interface communicating with an outer equipment, and

wherein the spreading width of the first spreading clocks is smaller than that of the second spreading clocks.

7. The image forming apparatus of claim 4,

wherein the first control circuit is a photoelectric conversion control circuit for controlling a photoelectric conversion section which receives light from an original document and conducts a photoelectric conversion, the second control circuit is at least one of a control circuit from among an operation control circuit for controlling an operation section, a sequence control circuit for controlling a sequence of an entire image forming apparatus, and an ADF control circuit for controlling an automatic document feeder, and

wherein the spreading width of the first spreading clocks is smaller than that of the second spreading clocks.

8. An image forming apparatus for forming an image on a recording material, comprising:

(a) an interface control circuit for controlling an interface communicating with an outer equipment, which is driven by first spreading clocks in which a band of a reference clock that is synchronized with a predetermined frequency is spread;

(b) a writing control circuit for controlling a writing section which writes according to image data, which is driven by second spreading clocks in which a band of a reference

clock that is synchronized with the predetermined frequency, is spread;

(c) a photoelectric conversion control circuit for controlling a photoelectric conversion section which receives light from an original document and conducts a photoelectric conversion, which is driven by third spreading clocks in which a band of a reference clock that is synchronized with the predetermined frequency is spread; and

(d) at least one of a control circuit from among an operation control circuit for controlling an operation section, a sequence control circuit for controlling a sequence of an entire image forming apparatus, and an ADF control circuit for controlling an automatic document feeder, which are driven by fourth spreading clocks in which a band of a reference clock that is synchronized with a predetermined frequency is spread,

wherein the spreading width of the first spreading clocks is smaller than that of the second spreading clocks, the spreading width of the second spreading clocks is smaller than that of the third spreading clocks, and the spreading width of the third spreading clocks is smaller than that of the fourth spreading clocks.

9. An image forming apparatus for forming an image on a recording material, comprising:

(a) a first spreading clock generator for spreading a band of a reference clock that is synchronized with a predetermined frequency, and generating first spreading clock signals;

(b) a first control circuit for controlling the image forming apparatus or each section of the image forming apparatus, and which is driven by the first spreading clocks;

(c) a second control circuit for controlling the image forming apparatus or each section of the image forming apparatus;

(d) a communication line through which a data communication is conducted between the first control circuit and the second control circuit; and

(e) a temporary memory section provided in the communication line for temporarily storing communicated data.

10. The image forming apparatus of claim 8 further comprising:

a second spreading clock generator for spreading a band of a reference clock that is synchronized with a predetermined frequency, and for generating second spreading clock signals,

wherein the second control circuit is driven by the second spreading clock signals.

11. An image forming apparatus for forming an image on a recording material, the image forming apparatus comprising:

(a) a writing section for writing according to image data;

(b) a first spreading clock generator for spreading a band of a reference clock that is synchronized with a predetermined frequency, and for generating first spreading clock signals;

(c) a second spreading clock generator for spreading a band of a reference clock that is synchronized with a predetermined frequency, and for generating second spreading clock signals;

(d) a first control circuit for controlling the image forming apparatus or each section of the image forming apparatus, which is driven by the first spreading clock signals; and

(e) a second control circuit for controlling the image forming apparatus or each section of the image forming apparatus, which is driven by the second spreading clock signals,

wherein the first spreading clock generator is
synchronized with the second spreading clock generator.